1   What is claimed is:

2   1.   A user-programmable audio alert system, comprising:

3   an audio alert;

4   a device having an emitter for emitting the audio alert; and

5   a data structure programmed to detect an occurrence of an audio alert triggering event

6   and relate the audio alert triggering event to the audio alert;

7   wherein when the audio alert triggering event occurs, the data structure detects the

8   occurrence of the audio alert triggering event and causes the device to emit the audio alert related

9   to the triggering event.

10

11   2.   The system of claim 1, wherein the audio alert comprises an audio alert created by a user.

12

13   3.   The system of claim 1, wherein the data structure comprises a data structure programmed

14   by a user.

15

16   4.   The system of claim 1, wherein the device comprises storage for storing data and wherein

17   the data structure comprises a data structure stored in the device.

18

19   5.   The system of claim 1, wherein the audio alert comprises a plurality of audio alerts,

20   wherein the data structure comprises a plurality of data structures, and

21   wherein each data structure is programmed to detect the occurrence of one of a plurality

22   of audio alert triggering events and relate the one of the plurality of audio alert triggering events

23   to one of the plurality of audio alerts.

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2   6.   The system of claim 1, wherein the audio alert comprises a sequence of numbers and

3   wherein each number further comprises a distinct musical tone.

4

5   7.   The system of claim 1, wherein the device comprises a wireless telephone.

6

7   8.   The system of claim 1, wherein the audio alert comprises an audio alert programmed with

8   a personal computer.

9

10   9.   The system of claim 1, wherein the audio alert comprises an audio alert programmed with

11   a keypad.

12

13   10.   The system of claim 1, the device further comprising a transmitter, wherein the device is

14   programmable to transmit the audio alert to another device having storage for storing data and an

15   emitter for emitting the audio alert.

16

17   11.   The system of claim 10, wherein the device is programmable to transmit the data

18   structure to the another device.

19

20   12.   The system of claim 1, wherein the device is programmable to modulate the audio alert

21   according to an external variable associated with the audio alert triggering event.

22

1   13.   The system of claim 12, wherein the external variable comprises global positioning

2   information.

3

4   14.   The system of claim 12, wherein the external variable comprises relative distance

5   information.

6

7   15.   The system of claim 12, wherein the external variable comprises directional information.

8

9   16.   The system of claim 12, wherein the external variable comprises retail information.

10

11   17.   The system of claim 16, wherein the retail information comprises product information.

12

13   18.   The system of claim 16, wherein the retail information comprises price information.

14

15   19.   A user-programmable audio alert system, comprising:

16   a plurality of audio alerts created by a user;

17   a plurality of data structures, each data structure programmed by a user to detect an

18   occurrence of one of a plurality of audio alert triggering events and relate the one of the plurality

19   of audio alert triggering events to one of the plurality of audio alerts;

20   a device having storage for storing data, the plurality of data structures stored in the

21   device; and

22   the device further comprising an emitter for emitting the plurality of audio alerts;

1   wherein when a particular one of the plurality of audio alert triggering events occurs, the

2   data structure so programmed detects the occurrence of the particular one of the plurality of

3   audio alert triggering events and causes the device to emit the audio alert related to the particular

4   triggering event.

5

6   20.   The system of claim 19, wherein the device comprises a wireless telephone.

7

8   21.   The system of claim 19, the device further comprising a transmitter, wherein the device is

9   programmable to transmit the plurality of audio alerts to another device having storage for

10   storing data and an emitter for emitting the plurality of audio alerts.

11

12   22.   The system of claim 21, wherein the device is programmable to transmit the plurality of

13   data structures to the another device.

14

15   23.   The system of claim 19, wherein the device is programmable to modulate a selected one

16   of the plurality of audio alerts according to an external variable associated with the audio alert

17   triggering event related to the selected one of the plurality of audio alerts.

18

19   24.   A user-programmable device for emitting an audio alert, comprising:

20   storage for storing data;

21   an audio alert stored in the device;

1   a data structure programmed to detect an occurrence of an audio alert triggering event

2   and relate the audio alert triggering event to the audio alert, the data structure stored in the

3   device; and

4   an emitter for emitting the audio alert,

5   wherein when the audio alert triggering event occurs, the data structure detects the audio

6   alert triggering event and causes the device to emit the audio alert related to the triggering event.

7

8   25.   The device of claim 24, wherein the audio alert comprises an audio alert created by a

9   user.

10

11   26.   The device of claim 24, wherein the data structure comprises a data structure

12   programmed by a user.

13

14   27.   The device of claim 24, wherein the audio alert comprises a plurality of audio alerts,

15   wherein the data structure comprises a plurality of data structures, and

16   wherein each data structure is programmed to detect one of a plurality of audio alert

17   triggering events and relate the one of the plurality of audio alert triggering events to one of the

18   plurality of audio alerts.

19

20   28.   The device of claim 24, wherein the audio alert comprises a sequence of numbers and

21   wherein each number further comprises a distinct musical tone.

22

23   29.   The device of claim 24, wherein the device comprises a wireless telephone.

1

2   30.   The device of claim 24, wherein the audio alert comprises an audio alert programmed

3   with a personal computer.

4

5   31.   The device of claim 24, wherein the audio alert comprises an audio alert programmed

6   with a keypad.

7

8   32.   The device of claim 24, the device further comprising a transmitter, wherein the device is

9   programmable to transmit the audio alert to another device having storage for storing data and an

10   emitter for emitting the audio alert.

11

12   33.   The device of claim 32, wherein the device is programmable to transmit the data structure

13   to the another device.

14

15   34.   The device of claim 24, wherein the device is programmable to modulate the audio alert

16   according to an external variable associated with the audio alert triggering event.

17

18   35.   The device of claim 34, wherein the external variable comprises global positioning

19   information.

20

21   36.   The device of claim 34, wherein the external variable comprises relative distance

22   information.

23

1   37.   The device of claim 34, wherein the external variable comprises directional information.

2

3   38.   The device of claim 34, wherein the external variable comprises retail information.

4

5   39.   The device of claim 38, wherein the retail information comprises product information.

6

7   40.   The device of claim 38, wherein the retail information comprises price information.

8

9   41.   A user-programmable device for emitting an audio alert, comprising:

10   storage for storing data;

11   a plurality of audio alerts created by a user;

12   a plurality of data structures, each data structure programmed by a user to detect an

13   occurrence of one of a plurality of audio alert triggering events and relate the one of the plurality

14   of audio alert triggering events to one of the plurality of audio alerts; and

15   an emitter for emitting the plurality of audio alerts,

16   wherein the plurality of audio alerts and each data structure are stored in the device, and

17   wherein when a particular one of the plurality of audio alert triggering events occurs, the

18   data structure so programmed detects the particular one of the plurality of audio alert triggering

19   events and causes the device to emit the audio alert related to the particular triggering event.

20

21   42.   The device of claim 41, wherein the device comprises a wireless telephone.

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1   43.   The device of claim 41, the device further comprising a transmitter, wherein the device is

2   programmable to transmit the plurality of audio alerts to another device having storage for

3   storing data and an emitter for emitting the plurality of audio alerts.

4

5   44.   The device of claim 43, wherein the device is programmable to transmit the plurality of

6   data structures to the another device.

7

8   45.   The device of claim 41, wherein the device is programmable to modulate a selected one

9   of the plurality of audio alerts according to an external variable associated with the audio alert

10 triggering event related to the selected one of the plurality of audio alerts.

11

12 46.   A method of customizing audio alerts in a device, comprising:

13   storing an audio alert in the device; and

14   programming in the device a data structure to detect an occurrence of an audio alert

15 triggering event and relate the audio alert triggering event to the audio alert;

16   wherein the data structure detects the occurrence of the audio alert triggering event and

17 causes the device to emit the audio alert related to the triggering event.

18

19 47.   The method of claim 46, wherein the audio alert comprises an audio alert created by a

20 user.

21

22 48.   The method of claim 46, wherein the data structure comprises a data structure

23 programmed by a user.

1

2   49.   The method of claim 46, wherein the audio alert comprises a plurality of audio alerts,

3   wherein the data structure comprises a plurality of data structures, and

4   wherein each data structure is programmed to detect an occurrence of one of a plurality

5   of audio alert triggering events and relate the one of the plurality of audio alert triggering events

6   to one of the plurality of audio alerts.

7

8   50.   The method of claim 46, wherein the audio alert comprises a sequence of numbers and

9   wherein each number further comprises a distinct musical tone.

10

11   51.   The method of claim 46, wherein the device comprises a wireless telephone.

12

13   52.   The method of claim 46, wherein the audio alert comprises an audio alert programmed

14   with a personal computer.

15

16   53.   The method of claim 46, wherein the audio alert comprises an audio alert programmed

17   with a keypad.

18

19   54.   The method of claim 46, wherein the device is programmable to transmit the audio alert

20   to another device having storage for storing data and an emitter for emitting the audio alert.

21

22   55.   The method of claim 46, wherein the device is programmable to transmit the data

23   structure to the another device.

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2   56.   The method of claim 46, wherein the device is programmable to modulate the audio alert

3   according to an external variable associated with the audio alert triggering event.

4

5   57.   The method of claim 56, wherein the external variable comprises global positioning

6   information.

7

8   58.   The method of claim 56, wherein the external variable comprises relative distance

9   information.

10

11   59.   The method of claim 56, wherein the external variable comprises directional information.

12

13   60.   The method of claim 56, wherein the external variable comprises retail information.

14

15   61.   The method of claim 61, wherein the retail information comprises product information.

16

17   62.   The method of claim 61, wherein the retail information comprises price information.

18

19   63.   A method of customizing audio alerts in a device, comprising:

20   storing a plurality of audio alerts created by a user in the device;

21   programming in the device a plurality of data structures, each data structure programmed

22   by a user to detect an occurrence of one of a plurality of audio alert triggering events and relate

23   the one of the plurality of audio alert triggering events to one of the plurality of audio alerts; and

31

1   wherein when a particular one of the plurality of audio alert triggering events occurs, the

2   data structure so programmed detects the particular one of the plurality of audio alert triggering

3   events and causes the device to emit the audio alert related to the particular triggering event.

4

5   64.   The method of claim 63, wherein the device comprises a wireless telephone.

6

7   65.   The method of claim 63, wherein the device is programmable to transmit the plurality of

8   audio alerts to another device having storage for storing data and an emitter for emitting the

9   plurality of audio alerts.

10

11   66.   The method of claim 63, wherein the device is programmable to transmit the plurality of

12   data structures to the another device.

13

14   67.   The method of claim 63, wherein the device is programmable to modulate a selected one

15   of the plurality of audio alerts according to an external variable associated with the audio alert

16   triggering event related to the selected one of the plurality of audio alerts.

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